ORDER NO. HAD8606541C4

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-V75

SU-V75

Color

(K) . . . Black Type

Color	Areas
(K)	[PA] . . . Far East PX
(K)	[PE] . . . European Military

Please use this manual together with the service manual for Model No. SU-362, Order No. HAD8605532C1.

SPECIFICATIONS (IHF' 78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output
20 Hz~20 kHz both channels driven
0.05% total harmonic distortion
80 W per channel (8 ohms)

1 kHz continuous power output
both channels driven
0.05% total harmonic distortion
85 W per channel (8 ohms)

Dynamic headroom 2 dB (8 ohms)

Total harmonic distortion
half power at 1 kHz 0.03% (8 ohms)

SMPTE intermodulation distortion
0.05% (8 ohms)

Frequency response
PHONO RIAA standard curve ±0.8 dB
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
10 Hz~80 kHz, −3 dB

Input sensitivity
PHONO 0.3 mV (2.5 mV, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
17 mV (150 mV, IHF '66)

S/N (IHF, A)
PHONO 74 dB (71 dB, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
79 dB (97 dB, IHF '66)

Maximum input voltage
PHONO 140 mV (150 mV, 1 kHz)

Input impedance
PHONO 47 kilohms
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT 15 kilohms

Tone controls
BASS 50 Hz, +10 dB~−10 dB
TREBLE 20 kHz, +10 dB~−10 dB

Loudness control (volume at −30 dB)
50 Hz, +9 dB

Output voltage
TAPE 1, TAPE 2/EXT (REC OUT) 150 mV

Low frequency damping factor 45 (8 ohms)

Load impedance
MAIN or REMOTE 8~16 ohms
MAIN and REMOTE 8~16 ohms

■ GENERAL

Power consumption 460 W, 540 VA

Power supply AC110/127/220/240V, 50/60Hz

Dimensions (W×H×D) 430 x 97 x 249.5 mm
(16-15/16" x 3-13/16" x 9-13/16")

Weight 6.1kg (13.4 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to change without notice for further improvement.

NOTE :

1. The tuner and tape deck in this system are powered through the amplifier . When servicing these components, prepare an amplifier or an external power supply (servicing power supply fixture Part No. : SZZA1065C). (For how to use the fixture, refer to the Service Manual of each model.)

Technics

Panasonic Tokyo Office
Matsushita Electric Trading Co., Ltd.
6th Floor, World Trade Center Bldg., No. 4-1,
Hamamatsu-cho 2-Chome, Minato-ku, Tokyo 105, Japan

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ CHANGE IN REPLACEMENT PARTS LIST

Ref. No.	Change of Part No. SU-362 → SU-V75		Description	
D801~803	LN463YCPP	LN363GCPP	LED, Input Select Indicator	(3)
T1	SLT5N460	SLT5N462	Power Transformer	(1)
VR301	EWCXSAF25B15	EWCXSAF15B15	Volume Control, 100kΩ(B)	(1)
VR302	EWHF5A20G15	EWHF5AF25G15	Balance Control, 100kΩ(G)	(1)
VR303, 304	EWCS6A020C5	EWCXEA011C15	Tone Controls, 100kΩ (C)	(2)
F1	XBA1F50NU14	XBA2C31TR0	Fuse, 250V T3.15A	(1)
F2	–	XBA2C16TR0	Fuse, 250V T1.6A	(1)
S1	ESB8248V	–	Switch, Power	(0)
S701	–	ESB8248V	Switch, Power	(1)
S702	–	ESE37263	Switch, Voltage Select	(1)
1	SYYU362KM	SYYUV75KPA	Front Panel Ass'y	(1)
2	SBN1125	SBN1034-1	Knob, Volume	(1)
3	SBN1089-1	SBN1032-4	Knob, Tone	(3)
4	SBC666	SBC666-3	Button, Power	(1)
6	SJT391	SJT347	Fuse Holder	(4)
8	SBC719	SBC315-7	Button, Speaker	(2)
9	SBC824	SBC824-1	Button, Selector	(5)
10	SBC619	SBC619-1	Button, Loudness	(1)
15	SJS9234B	SJS9231B	AC Inlet	(1)

Ref. No.	Change of Part No. SU-362 → SU-V75		Description	
16	SJS9234A	SJS9231A	Cover, AC Inlet	(1)
17	SJS9233B	SJS9232B	AC Outlet	(1)
18	SJS9233A	SJS9232A	Cover, AC Outlet	(1)
19	SGP6820B	SGP6822B	Rear Panel	(1)
25	LN054330P	LN051330P2	LED Ass'y, Input Selector	(1)
26	–	SMX897	Cover, Capacitor	(1)
	–	SMX881	Cover, Insulation, Power Transformer (Primary)	(1)
N7	–	XNS8D	Nut, Volume M'tg.	(1)
N8	–	XYN3+C6FZ	Screw, Voltage Selector M'tg.	(2)
N9	–	XWC4BFZ	Washer, Cabinet Screw	(2)
A1	SJA172-1	SJA168-1	Accessory, AC Cord	(1)
A2	SQF12766-2	SQF12800	Accessory, Instruction Book	(1)
A3	–	SJP9215	Accessory, Plug Adaptor	(1)
P1	SPG5728	SPG5751-1	Carton Box	(1)
P2	SPS4719-2	SPS4719-1	Pad, Left	(1)
P3	SPS4720-2	SPS4720-1	Pad, Right	(1)
P5	–	SPS4802	Pad, Upper	(1)
P6	–	SPS4815	Pad, Lower	(1)

■ REPLACEMENT PARTS LIST

Notes:

1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC201	AN6552F	IC
IC301	M5218L	IC
IC401 ⚠	SVI3105A	IC
IC601, 602	SVIBA6144	IC
TRANSISTOR		
Q501	2SA992E	Transistor
DIODES		
D501	MA165	Diode
D601~610	LN863RCPP	L.E.D.
D613	LN846RP	L.E.D.
D701	1SR35200	Rectifier
D801~803	LN363GCPP	L.E.D.
D804, 805	LN463YCPP	L.E.D.
D901~904 ⚠	SVDS3V40	Rectifier
D905, 906	MA4140-M	Diode
COILS		
L401, 402	SLQY07G-40	Choke
TRANSFORMERS		
T1 ⚠	SLT5N462	Power Source
VARIABLE RESISTORS		
VR301	EWCXSAF15B15	Volume, 100kΩ (B)
VR302	EWHF5AF25G15	Balance, 100kΩ (G)
VR303, 304	EWCXEA011C15	Tone, 100kΩ (C)
RELAY		
RL501	SSY126	Speaker

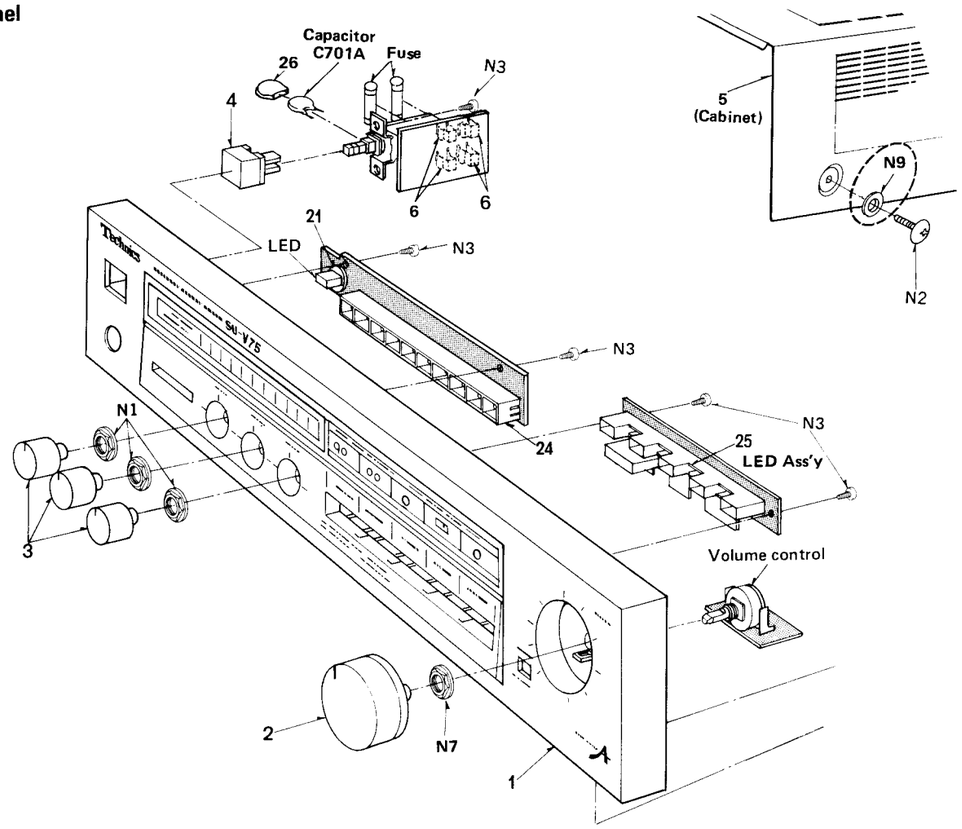
Ref. No.	Part No.	Description
FUSES		
F1 ⚠	XBA2C31TRO	250V, T3.15A
F2 ⚠	XBA2C16TRO	250V, T1.6A
SWITCHES		
S2, 3	SSH655	Input Selector
S4	SSH2116	Speaker
S701 ⚠	ESB8248V	Power Source
S702 ⚠	ESE37263	Voltage Selector

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
1	SYYUV75KPA	Front Panel Ass'y	(1)
2	SBN1034-1	Knob, Volume	(1)
3	SBN1032-4	Knob, Tone	(3)
4	SBC666-3	Button, Power	(1)
5	SKC1880K992	Cabinet	(1)
6	SJT347	Fuse Holder	(4)
7	SJJ134B	Jack, Headphone	(1)
8	SBC315-7	Button, Speaker	(2)
9	SBC824-1	Button, Selector	(5)
10	SBC619-1	Button, Loudness	(1)
11	SKUUZ900-KM	Bottom Board Ass'y	(1)
〔11-1	〔SKL293	Foot	(4)
12	SJF3062-5N	Input Terminal	(1)
13	SJF4818	Speaker Terminal	(1)
14	SJS306	Power Connector, 3 Pin	(1)
15 ⚠	SJS9231B	AC Inlet	(1)
16	SJS9231A	AC Inlet Cover	(1)
17 ⚠	SJS9232B	AC Outlet	(1)
18	SJS9232A	AC Outlet Cover	(1)

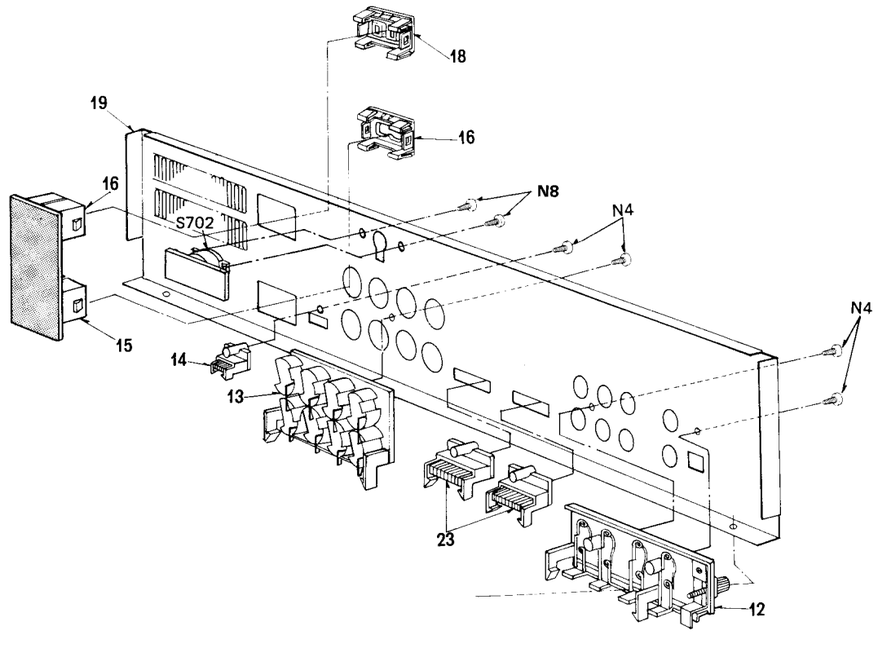
Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
19	SGP6822B	Rear Panel	(1)
20	SHR9094	Nylon Pin	(1)
21	SHG6393	Spacer, L.E.D.	(1)
22	SJT30343-V	Connector, 3 Pin	(1)
22	SJT30843-V	Connector, 8 Pin	(1)
22	SJT30643-V	Connector, 6 Pin	(1)
23	SJS804	Connector, 8 Pin	(2)
24	LN108327P1	L.E.D. Ass'y	(1)
25	LN051330P2	L.E.D. Ass'y	(1)
26	SMX897	Cover, Capacitor	(1)
	SMX881	Cover, Insulation	(1)
SCREWS			
N1	SNE4021	Nut	(3)
N2	SNE2095-5	Cabinet	(2)
N3	XTB3+8G	Tapping, ⊕3×8	(7)
N4	XTBS3+8JFZ1	Tapping, ⊕3×8	(19)
N5	SNE2126	Power IC	(2)
N6	XTW3+8T	Tapping, ⊕3×8	(3)
N7	XNS8D	Nut	(1)
N8	XYN3+C6FZ	Screw	(2)
N9	XWC4BFZ	Washer	(2)
ACCESSORIES			
A1 ⚠	SJA168-1	AC Cord	(1)
A2	SQF12800	Instruction Book	(1)
A3 ⚠	SJP9215	Plug Adaptor	(1)
PACKING PARTS			
P1	SPG5751-1	Carton Box	(1)
P2	SPS4719-1	Pad, Left	(1)
P3	SPS4720-1	Pad, Right	(1)
P4	SPP723	Polyethylene Sheet	(1)
P5	SPS4802	Pad, Upper	(1)
P6	SPS4815	Pad, Lower	(1)

■ CHANGE OF EXPLODED VIEWS

• Front panel

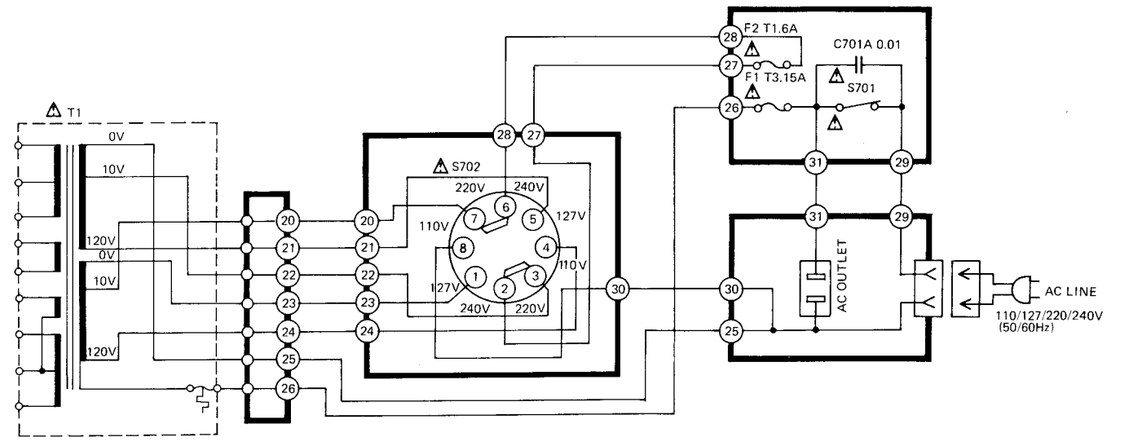


• Raer panel

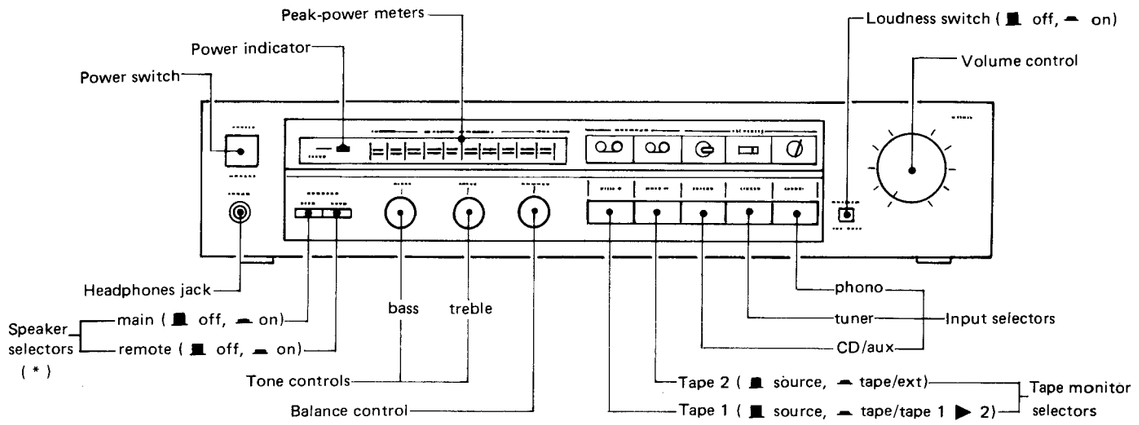


■ SCHEMATIC DIAGRAM

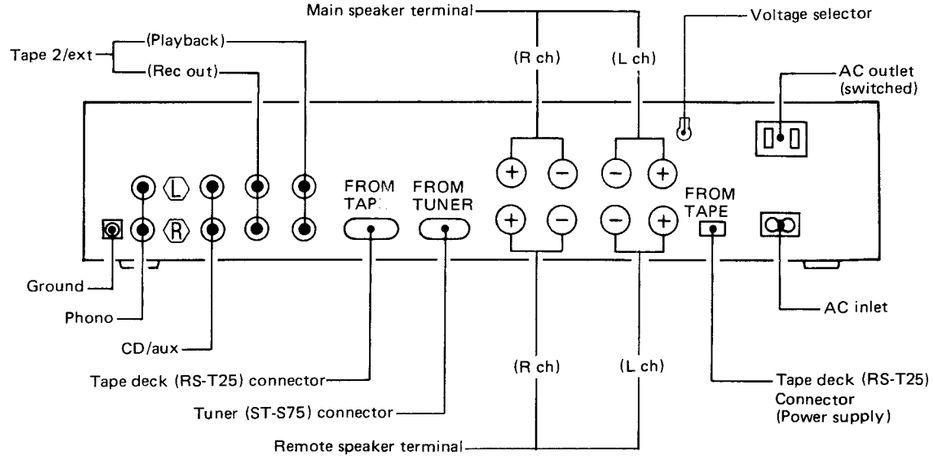
• Power source circuit



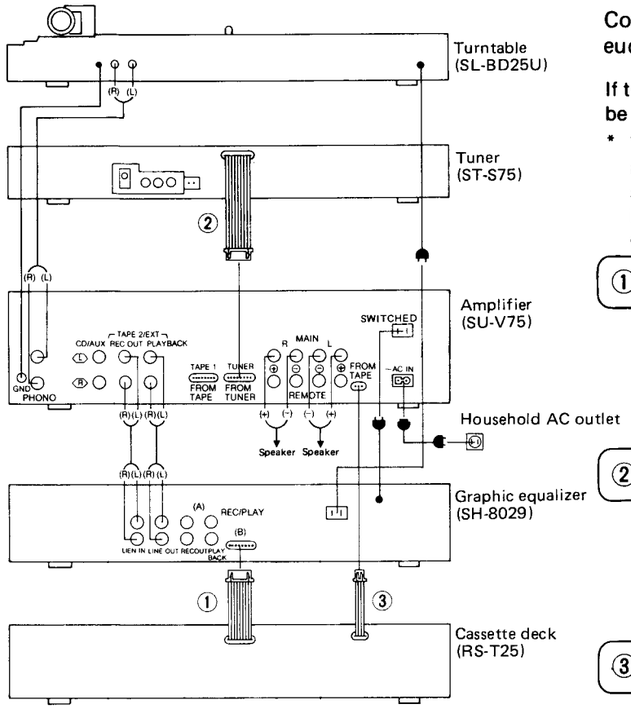
■ LOCATION OF CONTROLS



(*) When only one system of speakers is connected, no sound will be heard if both selectors are pressed.



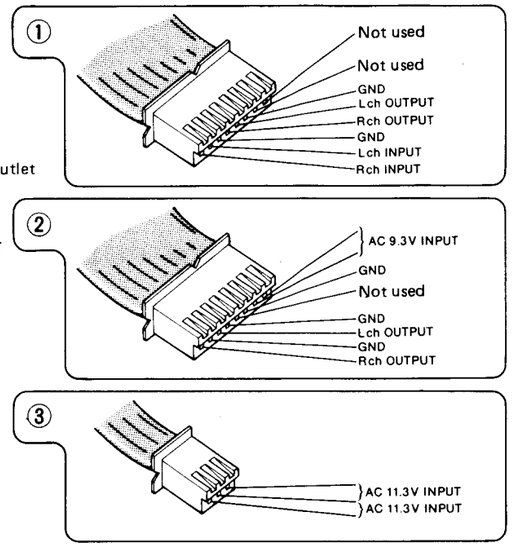
■ HOW TO CONNECT



Connect the turntable, tuner, amplifier, graphic euqalizer and cassette deck as shown.

If the connection is wrong, normal operation will not be attained.

* Tuner (ST-S75) and Cassette deck (RS-T25) is not equipped with power supply. The amplifier shown or power supply fixture (SZZA1065C) is necessary for the repair and check of Tuner or Cassette deck.



Notes:

- When a tape deck is connected to the (A) or (B) terminals of the graphic equalizer, recordings from the graphic equalizer can be made.
- Connections cannot be made to both the (A) and the (B) terminals at the same time.

■ BEFORE REPAIR AND ADJUSTMENT

(1) Turn off the power supply. Using a 10Ω, 5W resistor, shortcircuit both ends of power supply capacitors (C901, C902) in order to discharge the voltage.

(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110V/127V/220V/240V.

Power supply voltage	AC110V	AC127V	AC220V	AC240V
Consumed current 50/60Hz	260 ~ 440mA	240 ~ 405mA	130 ~ 225mA	120 ~ 205mA

Printed in Japan
860500400 Ⓚ KK
861000450

ORDER NO. HAD8605532C1
A1

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-362

SU-362

Color

(K) . . . Black Type

Color	Area
(K)	[M] . . . . U.S.A.

System
SC–3620

SPECIFICATIONS (IHF' 78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output
20 Hz~20 kHz both channels driven
0.5% total harmonic distortion
100 W per channel (8 ohms)

1 kHz continuous power output
both channels driven
0.5% total harmonic distortion
105 W per channel (8 ohms)

Dynamic headroom 1.5 dB (8 ohms)

Total harmonic distortion
half power at 1 kHz 0.05% (8 ohms)

SMPTE intermodulation distortion
0.5% (8 ohms)

Frequency response
PHONO RIAA standard curve ±0.8 dB
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
10 Hz~80 kHz, −3 dB

Input sensitivity
PHONO 0.3 mV (2.5 mV, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
17 mV (150 mV, IHF '66)

S/N (IHF, A)
PHONO MM 74 dB (71 dB, IHF '66)
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT
80 dB (97 dB, IHF '66)

Maximum input voltage
PHONO MM 140 mV (150 mV, 1 kHz)

Input impedance
PHONO 47 kilohms
TUNER, CD/AUX, TAPE 1, TAPE 2/EXT 15 kilohms

Tone controls
BASS 50 Hz, +10 dB~−10 dB
TREBLE 20 kHz, +10 dB~−10 dB

Loudness control (volume at −30 dB)
50 Hz, +9 dB

Output voltage
TAPE 1, TAPE 2/EXT (REC OUT) 150 mV

Low frequency damping factor 45 (8 ohms)

Load impedance
MAIN or REMOTE 8~16 ohms
MAIN and REMOTE 8~16 ohms

■ GENERAL

Power consumption 350 W, 450 VA
Power supply AC 120V, 60 Hz
Dimensions (W×H×D) 430 × 97 × 249.5 mm
(16-15/16" × 3-13/16" × 9-13/16")
Weight 6.1 kg (13.4 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).
Specifications are subject to change without notice for further improvement.

NOTE :

1. The tuner and tape deck in this system are powered through the amplifier . When servicing these components, prepare an amplifier or an external power supply (servicing power supply fixture Part No. : SZZA1058C). (For how to use the fixture, refer to the Service Manual of each model.)

■ CONTENTS

	Page
SAFETY PRECAUTION	2
PROTECTION CIRCUITRY	2
BEFORE REPAIR	2
LOCATION OF CONTROLS	3
HOW TO CONNECT	4
DISASSEMBLY INSTRUCTIONS	4
RESISTORS & CAPACITORS	6
BLOCK DIAGRAM	7
CIRCUIT BOARDS	8
SCHEMATIC DIAGRAM	11
EXPLODED VIEW	14
REPLACEMENT PARTS LIST	16

Panasonic®

Matsushita Service Company
50 Meadowland Parkway,
Secaucus. New Jersey 07094

Panasonic Hawaii Inc.
91-238 Kauhi St. Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774

Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
Ave, 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

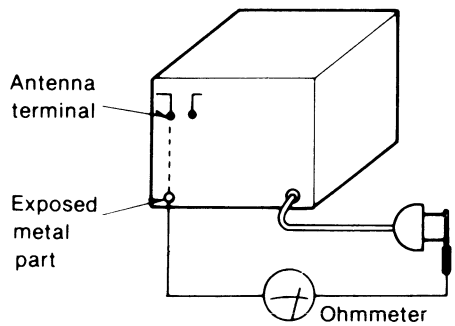
■ SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

• INSULATION RESISTANCE TEST

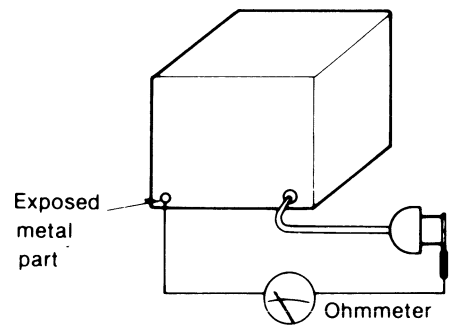
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = 3MΩ—5.2MΩ



(Fig. B)

Resistance = Approx ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ BEFORE REPAIR

Disconnect AC power, Discharge both Power Supply Capacitors C901 and C902 through a 10Ω, 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may distroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 120V, 60Hz in NO SIGNAL mode should be 305 ~ 515mA.

■ LOCATION OF CONTROLS

•Power switch/indicator

•Peak-power meters (power level meter)

These meters indicate the peak-power value of the output level to the speaker systems.

Note:

If speaker systems with an impedance of 8 ohms are connected, the actual value can be read directly. If, however, the impedance is 16 ohms, the actual output value is ½ of the indicated value.

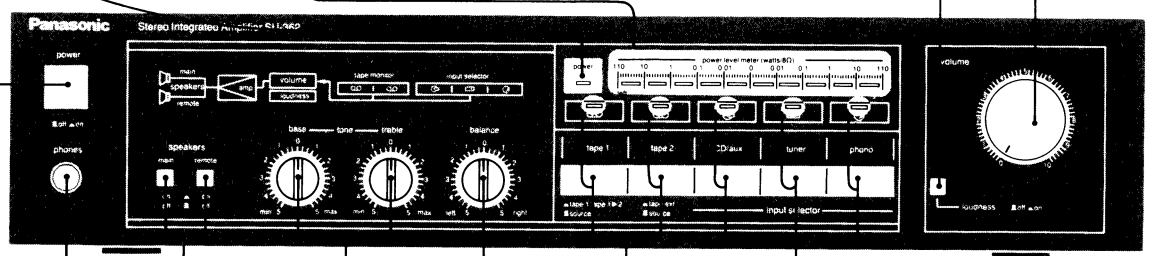
$$\text{Actual output} = \frac{\text{indicated value} \times 8\Omega}{\text{speaker impedance } (\Omega)}$$

•Loudness switch

Set to the "on" position when listening to music at low volume. Auditory perception of sound in the low frequency range falls off at low volume, but when the switch is in this position, this deficiency is compensated for, so that the full impact of the musical performance can be enjoyed.

•Volume control

This control is used to raise or lower the volume (sound) level.



•Headphones jack

•Balance control

This control is used to adjust left/right volume balance.

•Input selectors/indicators

These selectors are used to select the sound source to be heard, such as a disc, radio broadcast, etc. (the corresponding indicator will illuminate.)

•Speaker selectors

main (■ _ ■):

Sound can be heard from the speaker systems connected to the "MAIN" terminals.

remote (■ _ ■):

Sound can be heard from the speaker systems connected to the "REMOTE" terminals.

Note:

When only one system of speakers is connected, no sound will be heard if both selectors are pressed.

•Tone controls (bass/treble)

The bass control is used to adjust the low range sound. The treble control is used to adjust the high range sound.

•Tape monitor selectors/indicators (tape 1/tape 2)

(The indicator will illuminate)

source (■ _ ■):

Set to this position when one of the input selectors is pressed.

tape 1/tape 1▶2 (■ _ ■):

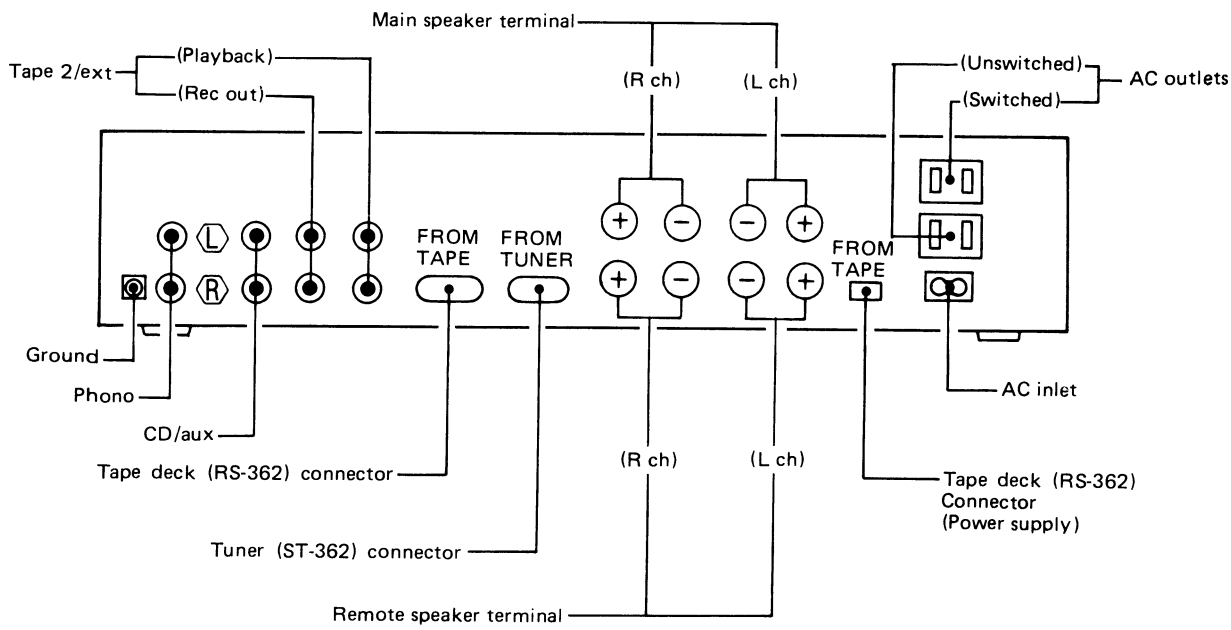
Set to this position to playback or monitor the sound from tape deck of this system or to record from tape deck of this system to a second tape deck connected to the "TAPE 2/EXT" terminals.

tape/ext (■ _ ■):

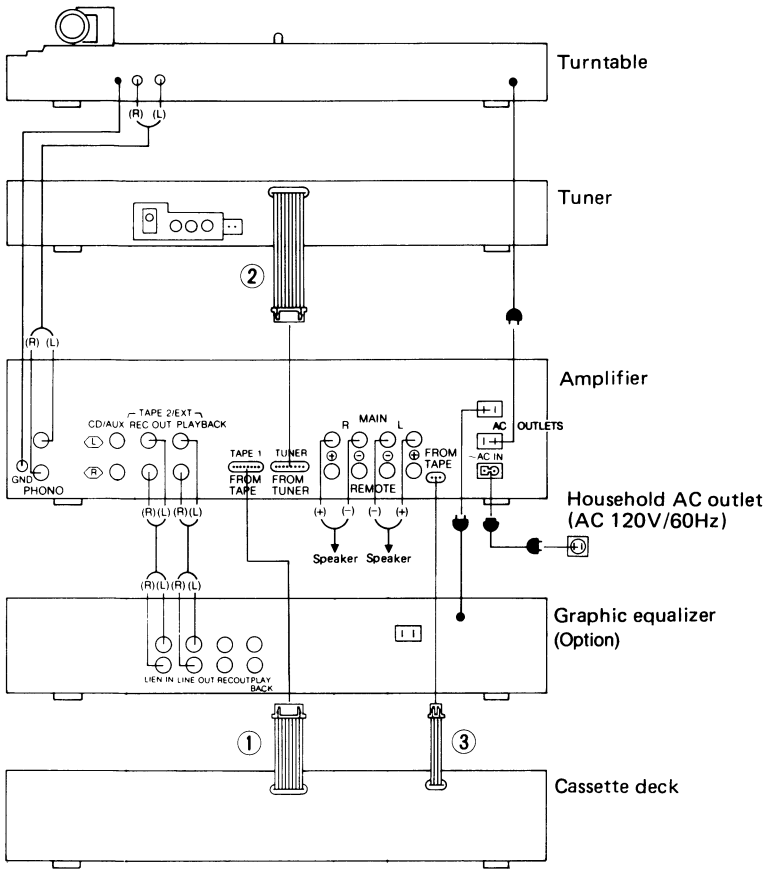
Set to this position to playback or monitor the sound from a second tape deck connected to the TAPE 2/EXT terminals.

Note:

If both tape-monitor selectors are pressed at the same time, only the sound from second tape deck will be heard.



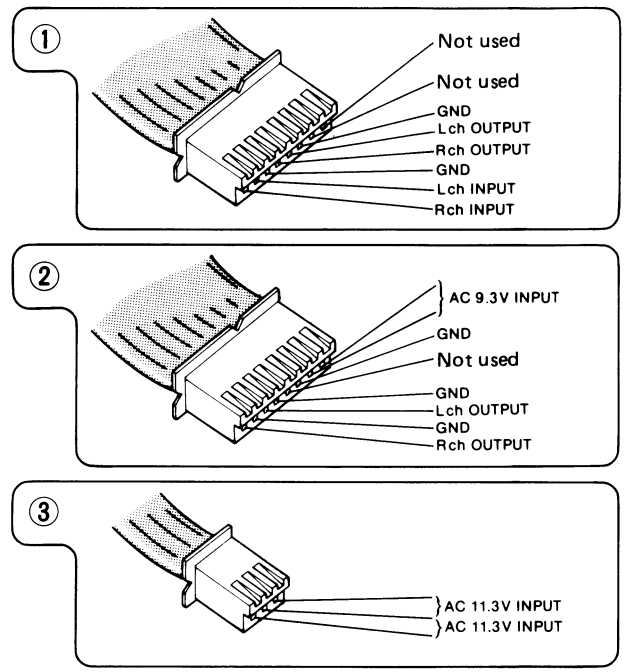
■ HOW TO CONNECT



Connect the turntable, tuner, amplifier, graphic euqalizer and cassette deck as shown.

If the connection is wrong, normal operation will not be attained.

* Tuner(ST-362) and Cassette deck (RS-362) is not equipped with power supply. The amplifier shown or power supply fixture (SZZA1058C) is necessary for the repair and check of Tuner or Cassette deck.



■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1	How to remove the front panel
Procedure 1	* Remove the top cabinet. 1. Pull out the 4 knobs (❶ ~ ❹). 2. Remove the 3 screws (❺ ~ ❼). 3. Remove the 4 nuts (❽ ~ ⓫). 4. Remove the 2 screws (⓬, ⓭).

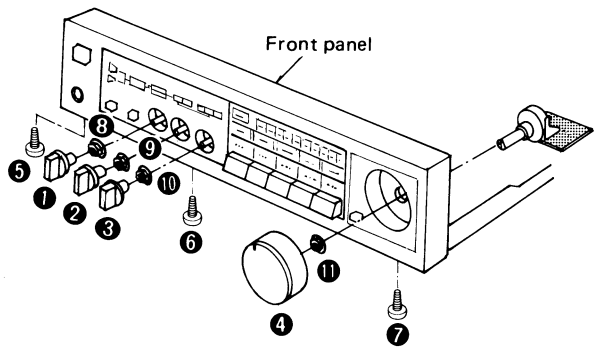


Fig. 1

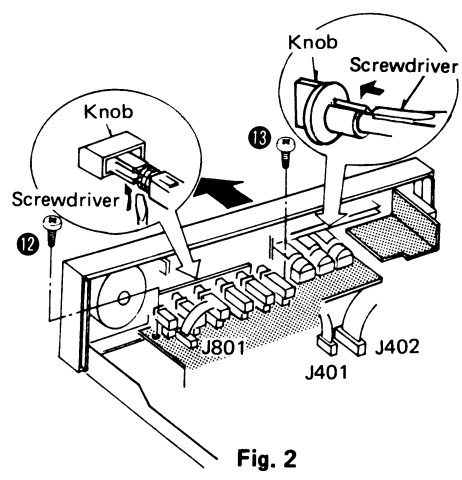
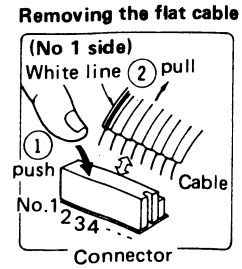


Fig. 2

Removing the knob
Remove the knob by pushing it with a screw driver from behind as shown in figure 2.

Removing the flat cable



Ref. No. 2 — How to remove the P.C.B.

Procedure 1 → 2

1. Pill-up the 2 tabs (❶ , ❷).
2. Remove the headphones P.C.B.
3. Remove the power switch knob.
4. Remove the 1 screw (❸).
5. Remove the power switch P.C.B.

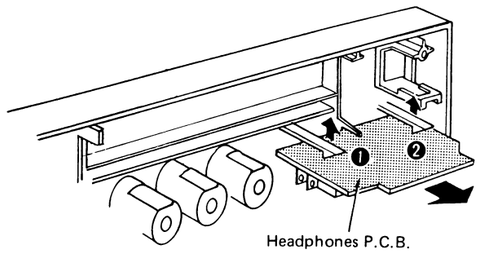


Fig. 1

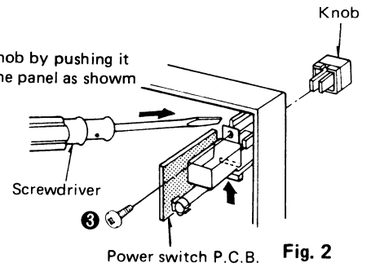
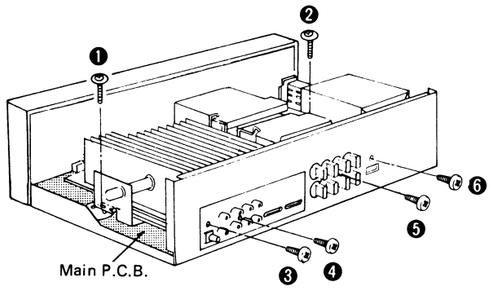


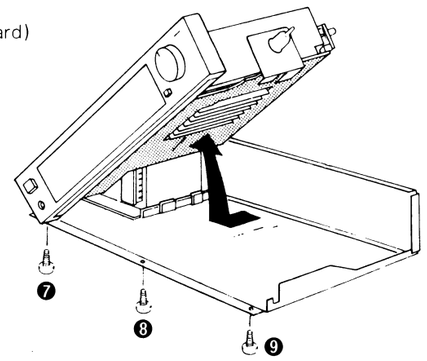
Fig. 2

Ref. No. 3 — How to remove the main P.C.B.

Procedure 3

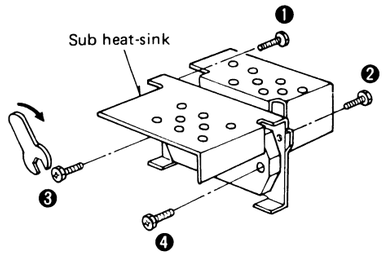
1. Remove the 9 screws (❶ ~ ❾).
2. Remove the main P.C.B. (or remove the bottom board)





Ref. No. 4 — How to remove the power amplifier IC.

Procedure 3 → 4

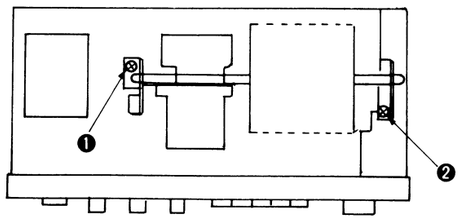


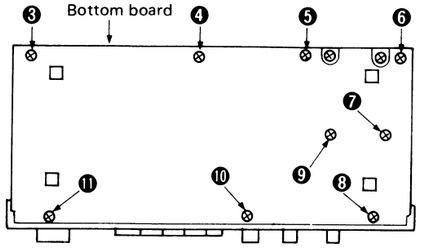
1. Unsolder the power IC.
2. Remove the 2 screws (❶ , ❷).
3. Remove the sub heat-sink.
4. Remove the 2 screws (❸ , ❹).

- When mounting the power IC, apply silicon thermal compound (SZZ0L15 or equivalent) to the rear of the power IC.

Ref. No. 5 — How to remove the bottom board

Remove the 11 screws (❶ ~ ⓫).





■ RESISTORS & CAPACITORS

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000KΩ
4. The unit of capacitance is MICROFARAD (μF). P = 10^{-6} μF

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type		Wattage		Tolerance
ERD	: Carbon	12A	: 1/2W	J : ±5%
ERG	: Metal Oxide	2A	: 2W	K : ±10%
ERC	: Solid	S2	: 1/4W	
		25	: 1/4W	
		S1	: 1/2W	

Numbering System of Capacitor

Example

ECKD	1H	102	Z	F
Type	Volgage	Value	Tolerance	Peculiarity

Capacitor Type		Voltage				Tolerance
ECE	: Electrolytic	0J	: 6.3V	66V	: 66V	K : ±10%
ECC	: Ceramic	1V	: 35V	1J	: 63V	Z : +80%, –20%
ECK	: Ceramic	1C	: 16V	KC	: 400V AC	M : ±20%
ECF	: Semi-conductor	1E	: 25V	2A	: 100V	P : +100%, –0%
ECQ	: Polyester	D	: 25V	2H	: 500V	
		1H	: 50V			

● RESISTORS

Ref. No.		Part No.	Value
R1	⚠	ERC12ZGK335	3.3M
R201, 202		ERDS2TJ391	390
R203, 204		ERDS2TJ473	47K
R207, 208		ERDS2TJ271	270
R209, 210		ERDS2TJ184	180K
R211, 212		ERDS2TJ123	12K
R213, 214		ERDS2TJ563	56K
R231, 232		ERDS2TJ561	560
R301, 302		ERDS2TJ222	2.2K
R303, 304		ERDS2TJ473	47K
R305, 306		ERDS2TJ183	18K
R309, 310		ERDS2TJ474	470K
R311, 312		ERDS2TJ474	470K
R313, 314		ERDS2TJ183	18K
R315, 316		ERDS2TJ332	3.3K
R317, 318		ERDS2TJ152	1.5K
R319, 320		ERDS2TJ681	680
R321, 322		ERDS2TJ223	22K
R323, 324		ERDS2TJ392	3.9K
R325, 326		ERDS2TJ392	3.9K
R331, 332		ERDS2TJ153	15K
R401, 402		ERDS2TJ222	2.2K
R403, 404		ERDS2TJ393	39K
R405, 406		ERDS2TJ272	2.7K
R407, 408		ERDS2TJ393	39K
R409, 410		ERDS1FJ100	10
R411, 412		ERDS2TJ470	47
R413, 414		ERG2ANJ331	330
R415, 416		ERDS2TJ561	560
R501		ERDS2TJ223	22K
R502	⚠	ERG2ANJ122	1.2K
R503	⚠	ERDS2TJ473	47K
R504	⚠	ERDS2TJ824	820K
R505		ERDS2TJ154	150K
R601, 602		ERDS2TJ824	820K
R603, 604		ERDS2TJ223	22K
R605, 606		ERDS2TJ103	10K
R607		ERDS2TJ561	560
R801, 802		ERDS2TJ391	390
R901, 902	⚠	ERG2ANJ222	2.2K
R905		ERD25FJ470	47

● CAPACITORS

Ref. No.		Part No.	Value
C1	⚠	ECKDKC103PF2	0.01
C203, 204		ECCD1H101K	100P
C205, 206		ECKD1H471KB	470P
C207, 208		ECEA0JU330	33
C209, 210		ECFTD223KXL	0.022
C211, 212		ECFTD682KXL	0.0068
C213, 214		ECEA1HN010S	1
C215, 216		ECEA1CU101	10
C218		ECKD1H103ZF	0.01
C301, 302		ECFTD823KXL	0.082
C303, 304		ECEA1EU3R3	3.3
C307, 308		ECKD1H331KB	330P
C309, 310		ECCD1H390K	39P
C311, 312		ECFTD123KXL	0.012
C313, 314		ECFTD683KXL	0.068
C315, 316		ECFTD562KXL	0.0056
C317, 318		ECFTD273KXL	0.027
C319, 320		ECEA1CU100	10
C322		ECKD1H103ZF	0.01
C401, 402		ECEA1HN010S	1
C403, 404		ECKD1H391KB	390P
C405, 406		ECKD1H102KB	0.001
C407, 408		ECEA1CU220	22
C409, 410		ECCD1H120K	12P
C411, 412		ECKD1H473ZF	0.047
C501		ECQV1H224JZ	0.22
C502		ECEA1HU330	33
C503		ECEA0JU331	330
C601, 602		ECFTD223KXL	0.022
C603, 604		ECEA1CKS100	10
C701		ECEA1CU471	470
C901, 902	⚠	ECES66V802U	8200
C903	⚠	ECKD2H103PE	0.01
C904, 905	⚠	ECEA2AG100S	10

■ BLO

Knob

Fig. 2

❷).

❹).

C, apply
ZZ0L15
he power

❻ ❺ ❼ ❽

■ RESISTORS & CAPACITORS

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000KΩ
4. The unit of capacitance is MICROFARAD (μF). P = 10^{-6}μF

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
ERD : Carbon ERG : Metal Oxide ERC : Solid	12A : 1/2W 2A : 2W S2 : 1/4W 25 : 1/4W S1 : 1/2W	J : ±5% K : ±10%

Numbering System of Capacitor

Example

ECKD	1H	102	Z	F
Type	Volgage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage	Tolerance
ECE : Electrolytic ECC : Ceramic ECK : Ceramic ECF : Semi-conductor ECQ : Polyester	0J : 6.3V 66V : 66V 1V : 35V 1J : 63V 1C : 16V KC : 400V AC 1E : 25V 2A : 100V D : 25V 2H : 500V 1H : 50V	K : ±10% Z : +80%, –20% M : ±20% P : +100%, –0%

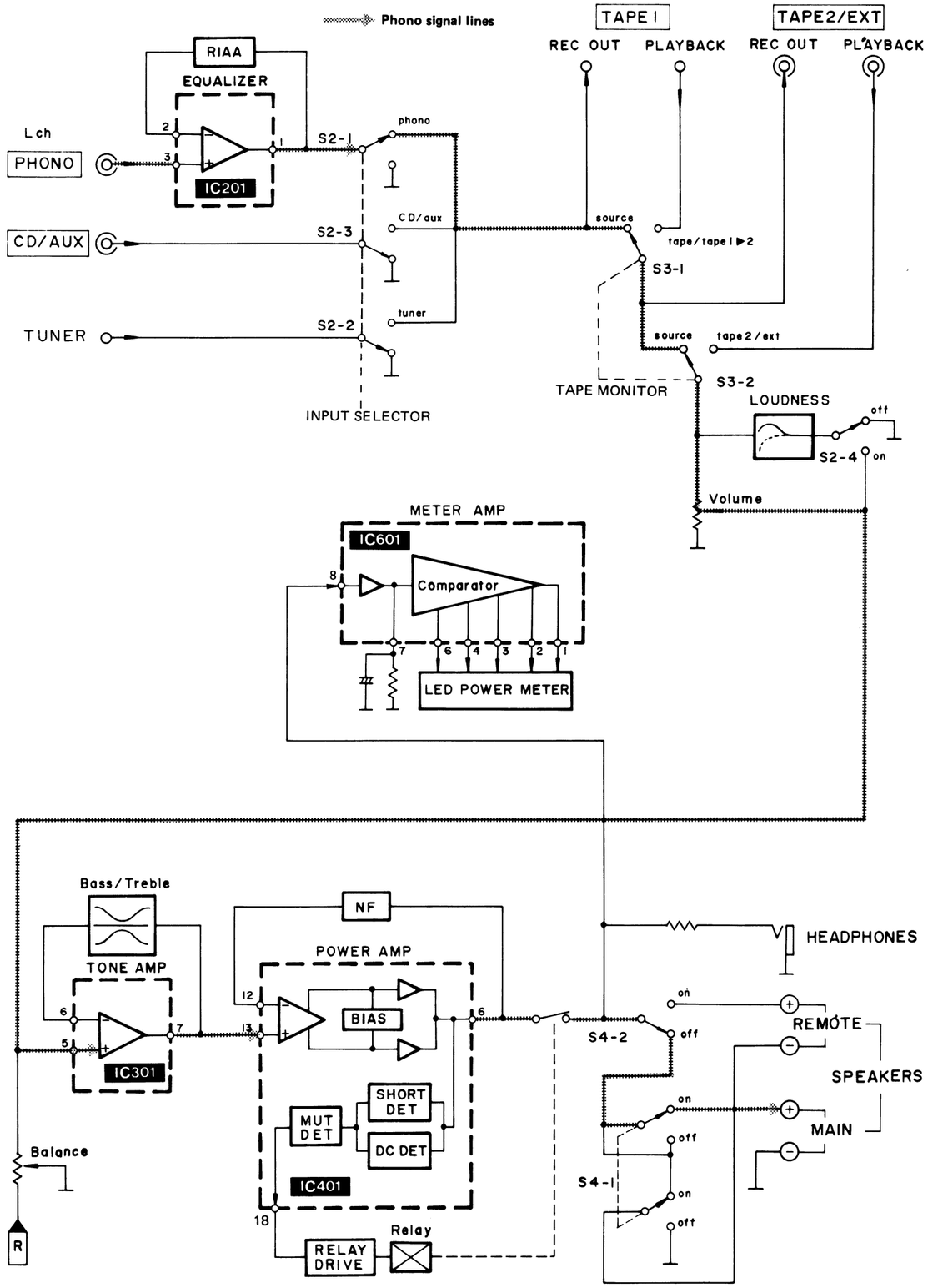
● RESISTORS

Ref. No.		Part No.	Value
R1	⚠	ERC12ZGK335	3.3M
R201, 202		ERDS2TJ391	390
R203, 204		ERDS2TJ473	47K
R207, 208		ERDS2TJ271	270
R209, 210		ERDS2TJ184	180K
R211, 212		ERDS2TJ123	12K
R213, 214		ERDS2TJ563	56K
R231, 232		ERDS2TJ561	560
R301, 302		ERDS2TJ222	2.2K
R303, 304		ERDS2TJ473	47K
R305, 306		ERDS2TJ183	18K
R309, 310		ERDS2TJ474	470K
R311, 312		ERDS2TJ474	470K
R313, 314		ERDS2TJ183	18K
R315, 316		ERDS2TJ332	3.3K
R317, 318		ERDS2TJ152	1.5K
R319, 320		ERDS2TJ681	680
R321, 322		ERDS2TJ223	22K
R323, 324		ERDS2TJ392	3.9K
R325, 326		ERDS2TJ392	3.9K
R331, 332		ERDS2TJ153	15K
R401, 402		ERDS2TJ222	2.2K
R403, 404		ERDS2TJ393	39K
R405, 406		ERDS2TJ272	2.7K
R407, 408		ERDS2TJ393	39K
R409, 410		ERDS1FJ100	10
R411, 412		ERDS2TJ470	47
R413, 414		ERG2ANJ331	330
R415, 416		ERDS2TJ561	560
R501		ERDS2TJ223	22K
R502	⚠	ERG2ANJ122	1.2K
R503	⚠	ERDS2TJ473	47K
R504	⚠	ERDS2TJ824	820K
R505		ERDS2TJ154	150K
R601, 602		ERDS2TJ824	820K
R603, 604		ERDS2TJ223	22K
R605, 606		ERDS2TJ103	10K
R607		ERDS2TJ561	560
R801, 802		ERDS2TJ391	390
R901, 902	⚠	ERG2ANJ222	2.2K
R905		ERD25FJ470	47

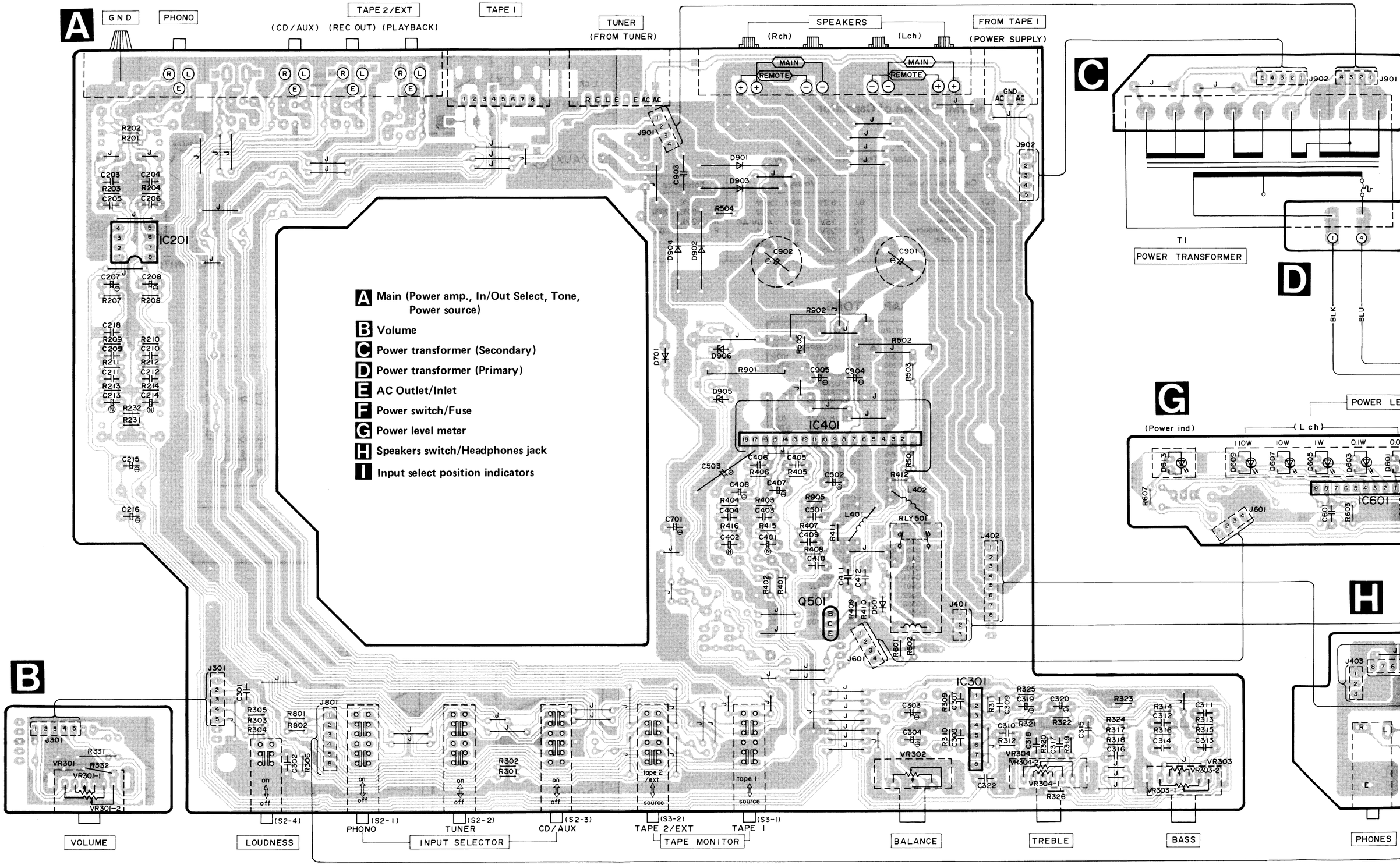
● CAPACITORS

Ref. No.		Part No.	Value
C1	⚠	ECKDKC103PF2	0.01
C203, 204		ECCD1H101K	100P
C205, 206		ECKD1H471KB	470P
C207, 208		ECEA0JU330	33
C209, 210		ECFTD223KXL	0.022
C211, 212		ECFTD682KXL	0.0068
C213, 214		ECEA1HN010S	1
C215, 216		ECEA1CU101	10
C218		ECKD1H103ZF	0.01
C301, 302		ECFTD823KXL	0.082
C303, 304		ECEA1EU3R3	3.3
C307, 308		ECKD1H331KB	330P
C309, 310		ECCD1H390K	39P
C311, 312		ECFTD123KXL	0.012
C313, 314		ECFTD683KXL	0.068
C315, 316		ECFTD562KXL	0.0056
C317, 318		ECFTD273KXL	0.027
C319, 320		ECEA1CU100	10
C322		ECKD1H103ZF	0.01
C401, 402		ECEA1HN010S	1
C403, 404		ECKD1H391KB	390P
C405, 406		ECKD1H102KB	0.001
C407, 408		ECEA1CU220	22
C409, 410		ECCD1H120K	12P
C411, 412		ECKD1H473ZF	0.047
C501		ECQV1H224JZ	0.22
C502		ECEA1HU330	33
C503		ECEA0JU331	330
C601, 602		ECFTD223KXL	0.022
C603, 604		ECEA1CKS100	10
C701		ECEA1CU471	470
C901, 902	⚠	ECES66V802U	8200
C903	⚠	ECKD2H103PE	0.01
C904, 905	⚠	ECEA2AG100S	10

■ BLOCK DIAGRAM



■ CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM



A Main (Power amp., In/Out Select, Tone, Power source)
B Volume
C Power transformer (Secondary)
D Power transformer (Primary)
E AC Outlet/Inlet
F Power switch/Fuse
G Power level meter
H Speakers switch/Headphones jack
I Input select position indicators

IC, Q	IC201	IC401 Q501	IC301	IC601

M

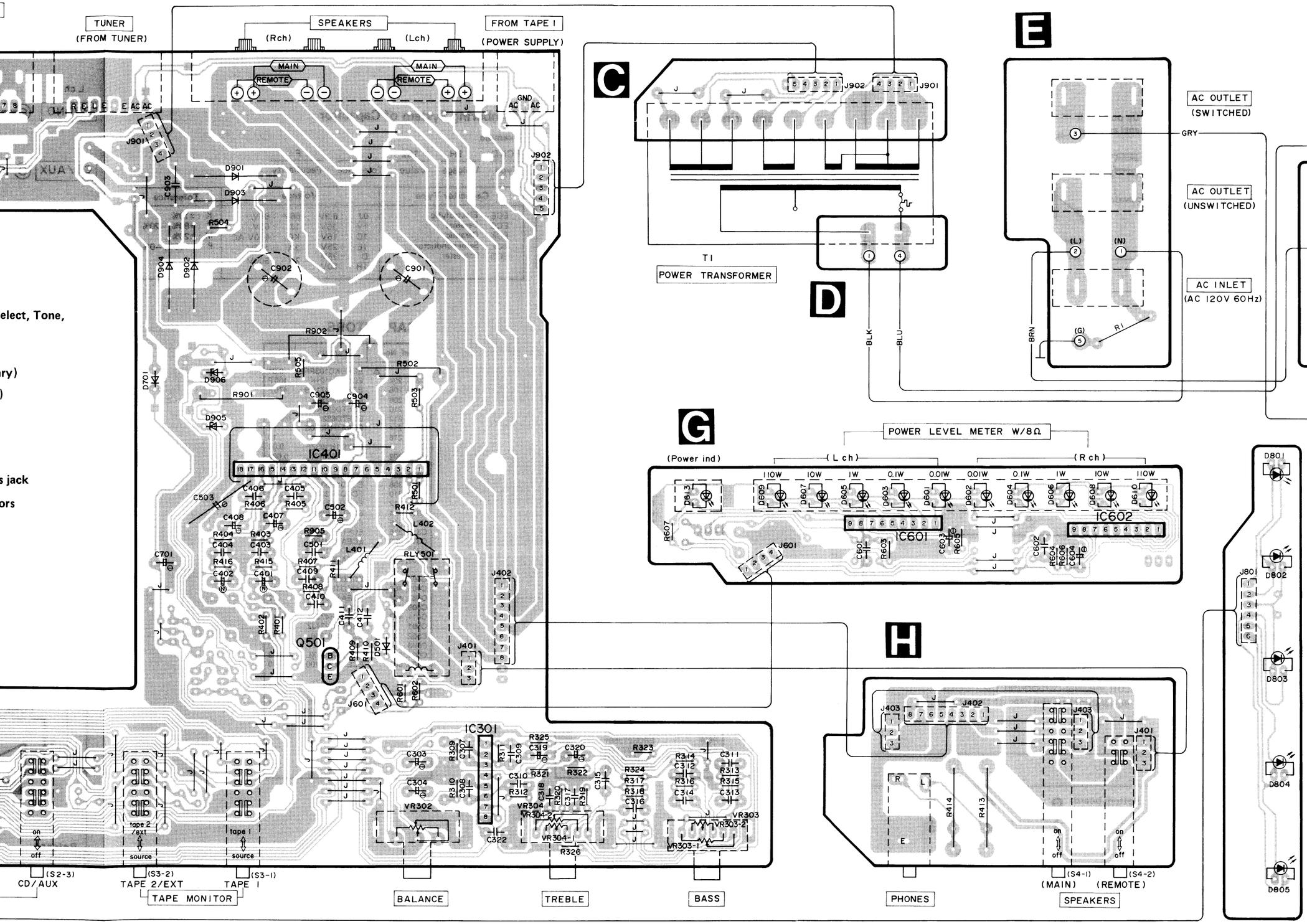
elect, Tone,

ry)

)

s jack

ors



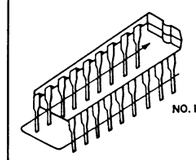
IC401 Q501 IC301 IC601 IC602

- 9 -

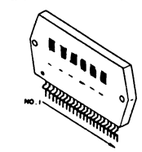
- 10 -

- Terminal guide of transistors, diodes and IC's

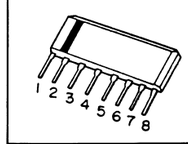
AN6552F 8pin



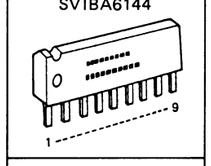
SVI3105A 18pin



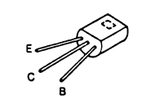
M5218L



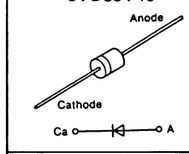
SVIBA6144



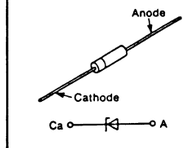
2SA992



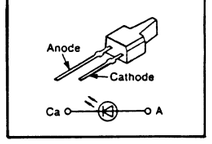
MA165
1SR53200
SVDS3V40

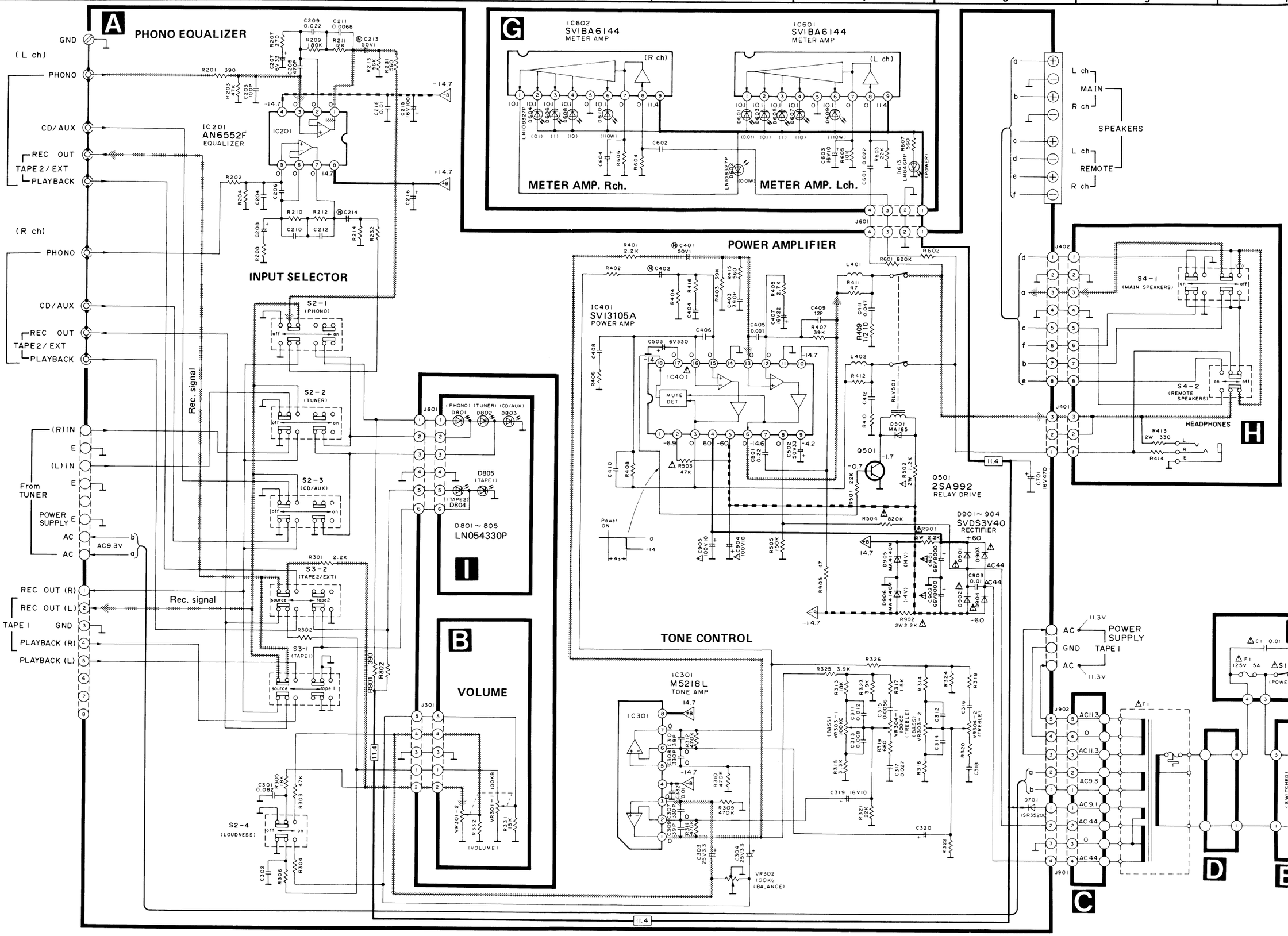


MA4140M



LN846RP




A
PHONO EQUALIZER
IC201
AN6552F
EQUALIZER
INPUT SELECTOR
Rec. signal
S2-1 (PHONO)
S2-2 (TUNER)
S2-3 (CD/AUX)
S3-2 (TAPE2/EXT)
S3-1 (TAPE1)
S2-4 (LOUDNESS)
B
VOLUME
I
D801~805 LN054330P
G
IC602 SVIBA6144 METER AMP
IC601 SVIBA6144 METER AMP
METER AMP. Rch.
METER AMP. Lch.
POWER AMPLIFIER
IC401 SVI3105A POWER AMP
Q501 2SA992 RELAY DRIVE
D901~904 SVDS3V40 RECTIFIER
TONE CONTROL
IC301 M5218L TONE AMP
H
SPEAKERS
HEADPHONES
C
POWER SUPPLY
D
E
F
From TUNER
TAPE 1
TAPE2/EXT
PLAYBACK
REC OUT
CD/AUX
PHONO

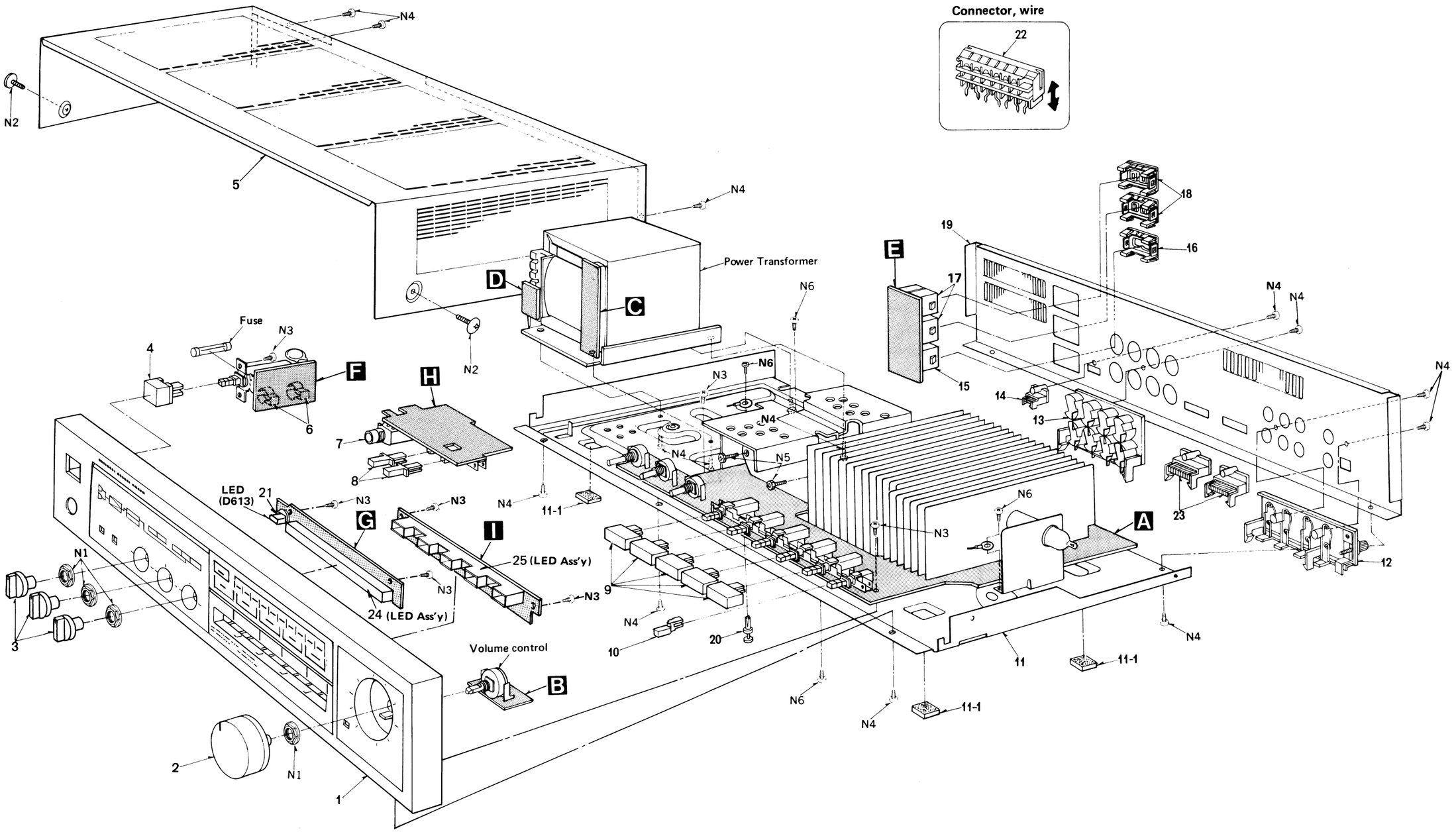
■ SCHEMATIC DIAGRAM

Notes:

1. **S1** : Power source switch in **"on"** position.
2. **S2-1 ~ S2-3** : Input selector in **"phono"** position.
   - S2-1 : phono
   - S2-2 : tuner
   - S2-3 : CD/aux
3. **S2-4** : Loudness switch in **"off"** position.
4. **S3-1, S3-2** : Tape monitor selector in **"source"** position.
   - S3-1 : tape 1 (▟ source, ▬ tape/tape 1 ▶ 2)
   - S3-2 : tape 2 (▟ source, ▬ tape/ext)
5. **S4-1, S4-2** : Speaker selector in **"main"** position.
   - S4-1 : main speaker
   - S4-2 : remote speaker

   * When only one system of speakers is connected, no sound will be heard if both selectors are pressed.
6. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
   Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
   Measurement condition:
   Input selector — phono (no signal)
   Volume — Minimum
   Loudness — off
7. ▬□▬ Positive (+B) voltage lines
8. ▬·□·▬ Negative (—B) voltage lines
9. ⋯◇⋯ Signal lines (L channel)
10. Important safety notice:
    Components identified by ⚠ mark have special, characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

EXPLODED VIEWS

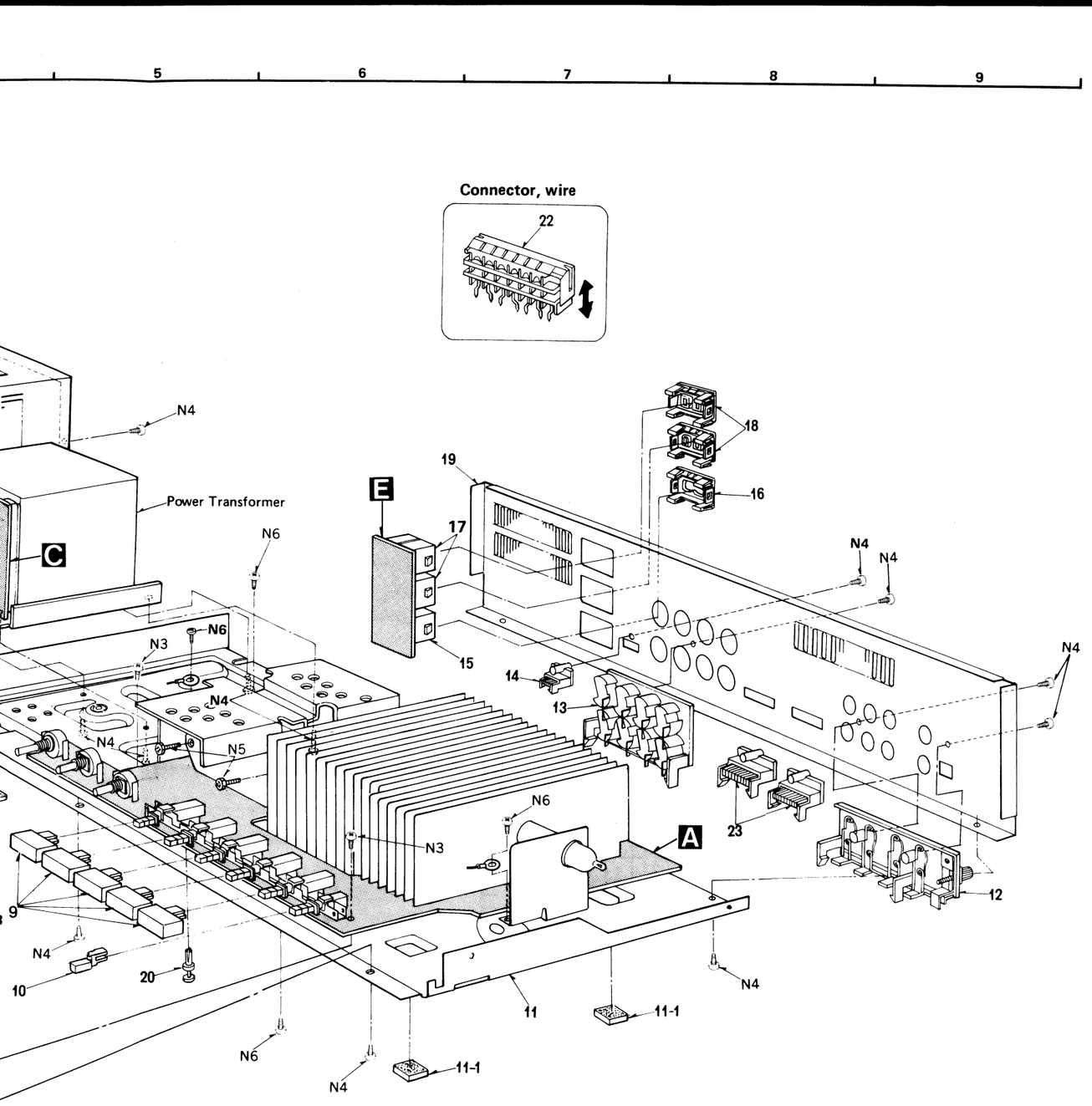


A ~ I : Printed Circuit Boards, Refer to Schematic Diagram.

REPLA

Notes:
1. Part nur
2. Importa
   When re
3. The pare

Ref. No.	
INTEGRATED	
IC201 IC301 IC401 IC601, 602	⚠
TRANSISTOR	
Q501	
DIODES	
D501 D601~610 D613 D701 D801~805 D901~904 D905, 906	⚠
COILS	
L401, 402	
TRANSFORME	
T1	⚠
VARIABLE RE	
VR301	
VR302	
VR303, 304	
RELAY	
RL501	



■ REPLACEMENT PARTS LIST

Notes:

1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC201	AN6552F	IC
IC301	M5218L	IC
IC401	⚠ SVI3105A	IC
IC601, 602	SVIBA6144	IC
TRANSISTOR		
Q501	2SA992E	Transistor
DIODES		
D501	MA165	Diode
D601~610	LN863RCPP	L.E.D.
D613	LN846RP	L.E.D.
D701	1SR35200	Rectifier
D801 ~805	LN463YCPP	L.E.D.
D901~904	⚠ SVDS3V40	Rectifier
D905, 906	MA4140-M	Diode
COILS		
L401, 402	SLQY07G-40	Choke
TRANSFORMERS		
T1	⚠ SLT5N460	Power Source
VARIABLE RESISTORS		
VR301	EWCXSAF25B15	Volume, 100kΩ (B)
VR302	EWHF5AF20G15	Balance, 100kΩ (G)
VR303, 304	EWCS6A020C15	Tone, 100kΩ (C)
RELAY		
RL501	SSY126	Speaker

Ref. No.	Part No.	Description
FUSE		
F1	⚠ XBA1F50NU14	125V, 5A
SWITCHES		
S1	⚠ ESB8248V	Power Source
S2, 3	SSH655	Input Selector
S4	SSH2116	Speaker

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
1	SYYU362KM	Front Panel Ass'y	(1)
2	SBN1125	Knob, Volume	(1)
3	SBN1089-1	Knob, Tone	(3)
4	SBC666	Button, Power	(1)
5	SKC1880K992	Cabinet	(1)
6	SJT391	Fuse Holder	(2)
7	SJJ134B	Jack, Headphone	(1)
8	SBC719	Button, Speaker	(2)
9	SBC824	Button, Selector	(5)
10	SBC619	Button, Loudness	(1)
11	SKUUZ900-KM	Bottom Board Ass'y	(1)
(11-1	(SKL293	Foot	(4)
12	SJF3062-5N	Input Terminal	(1)
13	SJF4818	Speaker Terminal	(1)
14	SJS306	Power Connector, 3 Pin	(1)
15	⚠ SJS9234B	AC Inlet	(1)
16	SJS9234A	AC Inlet Cover	(1)
17	⚠ SJS9233B	AC Outlet	(2)
18	SJS9233A	AC Outlet Cover	(2)

Ref. No.	Part No.	Description	
CABINET and CHASSIS PARTS			
19	SGP6820B	Rear Panel	(1)
20	SHR9094	Nylon Pin	(1)
21	SHG6393	Spacer, L.E.D.	(1)
22	SJT30343-V	Connector, 3 Pin	(1)
22	SJT30843-V	Connector, 8 Pin	(1)
22	SJT30643-V	Connector, 6 Pin	(1)
23	SJS804	Connector, 8 Pin	(2)
24	LN108327P1	L.E.D. Ass'y	(1)
25	LN054330P	L.E.D. Ass'y	(1)
SCREWS			
N1	SNE4021	Nut	(4)
N2	SNE2095-5	Cabinet	(2)
N3	XTB3+8G	Tapping, ⊕3×8	(7)
N4	XTBS3+8JFZ1	Tapping, ⊕3×8	(19)
N5	SNE2126	Power IC	(2)
N6	XTW3+8T	Tapping, ⊕3×8	(3)
ACCESSORIES			
A1	⚠ SJA172-1	AC Cord	(1)
A2	SQF12766-2	Instruction Book	(1)
PACKING PARTS			
P1	SPG5728	Carton Box	(1)
P2	SPS4719-2	Pad, Left	(1)
P3	SPS4720-2	Pad, Right	(1)
P4	SPP723	Polyethylene Sheet	(1)

Printed in Japan
860504300 Ⓚ KK/TM
861000400